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S/N unknown PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Nakanishi et al.	Docket No.:	10873.887USWO
Serial No.:	unknown	Filed:	concurrent herewith
Int'l Appln No.:	PCT/JP01/05822	Int'l Filing Date:	July 4, 2001
Title:	OPTICAL ELEMENT, SEMICONDUCTOR DEVICE, AND OPTICAL INFORMATION RECORDING DEVICE EMPLOYING THE SAME		

CERTIFICATE UNDER 37 CFR 1.10
'Express Mail' mailing label number: EL669944329US
Date of Deposit: February 28, 2002
I hereby certify that this correspondence is being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C . 20231.

By: _____
Name: Chris Stordahl

PRELIMINARY AMENDMENT

Box PCT
Assistant Commissioner for Patents
Washington, D. C. 20231

Dear Sir:

In connection with the above-identified application filed herewith, please enter the following preliminary amendment, which is based on the Article 19 amendments:

IN THE ABSTRACT

Insert the attached Abstract page into the application as the last page thereof.

IN THE SPECIFICATION

A courtesy copy of the present specification is enclosed herewith. However, the World Intellectual Property Office (WIPO) copy should be relied upon if it is already in the U.S. Patent Office.

IN THE CLAIMS

5. (amended) The optical semiconductor device according to claim 1, wherein the first diffraction grating is composed of gratings, each of which is in a curved line form.

6. (amended) The optical semiconductor device according to claim 1, wherein the first diffraction grating is composed of a plurality of diffraction grating regions having the same diffraction efficiency.

7. (amended) The optical semiconductor device according to claim 1, wherein the first diffraction grating is composed of at least two diffraction grating regions that differ from each other in a direction in which gratings are arranged.

8. (amended) The optical semiconductor device according to claim 1, wherein the first diffraction grating is composed of diffraction grating regions having the same grating periodic interval.

9. (amended) The optical semiconductor device according to claim 1, wherein the first diffraction grating is composed of a plurality of diffraction grating regions that divide a spot of the reflected light beam equally.

REMARKS

The above preliminary amendment is made to remove multiple dependencies from claims 5-9.

A new abstract page is supplied to conform to that appearing on the publication page of the WIPO application, but the new Abstract is typed on a separate page as required by U.S. practice.

Applicants respectfully request that the preliminary amendment described herein be entered into the record prior to calculation of the filing fee and prior to examination and consideration of the above-identified application.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 371.5237.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Dated: February 28, 2002

By _____
Douglas P. Mueller
Reg. No. 30,300

D.Mueller:hb

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MARK-UP COPY SHOWING THE CHANGES MADE

5. (amended) The optical semiconductor device according to claim 1 ~~or 2~~, wherein the first diffraction grating is composed of gratings, each of which is in a curved line form.

6. (amended) The optical semiconductor device according to claim 1 ~~or 2~~, wherein the first diffraction grating is composed of a plurality of diffraction grating regions having the same diffraction efficiency.

7. (amended) The optical semiconductor device according to claim 1 ~~or 2~~, wherein the first diffraction grating is composed of at least two diffraction grating regions that differ from each other in a direction in which gratings are arranged.

8. (amended) The optical semiconductor device according to claim 1 ~~or 2~~, wherein the first diffraction grating is composed of diffraction grating regions having the same grating periodic interval.

9. (amended) The optical semiconductor device according to claim 1 ~~or 2~~, wherein the first diffraction grating is composed of a plurality of diffraction grating regions that divide a spot of the reflected light beam equally.

ABSTRACT

An optical semiconductor device comprising an emitted beam branching section (61) which branches an emitted light beam from a laser device (51), a reflected light beam branching section (71) which branches a reflected light beam from an information recording medium (3) into light beams different from each other in focused state, servo signal sensing photodetectors (43, 45) which receive the branched reflected light beam in a defocused state, a first diffraction grating provided in the emitted light beam branching section for diffracting the reflected light beam having passed through the reflected light beam flux branching section, and a signal sensing photodetector (47) which receives the reflected light beam diffracted by the first diffraction grating.